BroilVection[™] Model JF94 Electric Owner's Manual

TOMATIC BROILERS



FOR YOUR SAFETY:

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

WARNING:

Improper installation, adjustment, alteration, maintenance can cause property damage, injury, or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

Broiler area must be kept free of combustible materials, and the flow of combustion and ventilation air must not be obstructed. Operating personnel must not perform any maintenance or repair functions. Contact your Nieco Authorized Dealer.

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A. GENERAL INFORMATION

A.1 Description

The Nieco Model JF94E automatic broiler features patented BroilVection[™] air technology which uses waste heat to help broil the product creating large energy savings. The JF94 also has easy cleaning and a simple and intuitive control package to help eliminate broiling problems and provide the operator with even greater control over the broiling environment.

This manual provides the safety, installation and operating procedures for the Nieco Automatic Broiler Model JF94E. We recommend that all information contained in this manual be read prior to installing and operating the broiler.

A.2 Warranty Information

Please read the full text of the limited Warranty in this manual.

If the unit arrives damaged, contact the carrier immediately and file a damage claim with them. Save all packing materials when filing a claim. Freight damage claims are the responsibility of the purchaser and **ARE NOT** covered under warranty.

The warranty does not extend to:

- Damages caused in shipment or damage as a result of improper use.
- Installation of electrical service.
- Normal maintenance as outlined in this manual.
- Malfunction resulting from improper maintenance not in accordance with the steps contained in
 - this manual and any applicable training.

• Damage caused by abuse or careless handling outside of the normal operating procedures

contained in this manual.

- Damage from moisture into electrical components.
- Damage from tampering with or removal of any safety device.

IMPORTANT!

Keep these instructions for future reference. If the unit changes ownership, be sure this manual accompanies the equipment.

IMPORTANT

The Nieco Corporation reserves the right to change specifications and product design in accordance with the general terms and conditions outlined in the BURGER

KING®/Vendor



A.3 Service/Technical Assistance

If you experience any problems with the installation or operation of your broiler, contact your local Authorized Nieco Distributor.

Fill in the information bellow and have it handy when calling your authorized service agency for assistance. The serial number is on the broiler rating plate on the side of the unit.

Purchased from:	
Date of Purchase):
Model No.:	
Serial No.:	

For the name of your local Authorized Nieco Distributor, please call (800) 821-2141 (U.S. Only).

Use only genuine Nieco replacement parts in your broiler. Use of replacement parts other than those supplied by Authorized Nieco Distributors and Service Agencies will void the warranty and may significantly alter the performance of your broiler. Nieco and the Burger King Corporation have worked together to create a set of standards for broiler performance, food quality and food safety. The use of non-Nieco parts is capable of affecting these criteria, and may affect broiler performance, parts longevity and food safety. Your local Authorized Nieco Distributor and Service Agent has been factory trained and has a complete supply of parts for your Nieco Automatic

A.4 Important Safety Information

Throughout this manual, you will find the following safety words and symbols that signify important safety issues with regards to operating or maintaining the equipment:

A WARNING A

GENERAL WARNING. Indicates information important to the proper operation of the equipment. Failure to observe may result in damage to the equipment and/or severe bodily

CAUTION A

GENERAL CAUTION. Indicates information important to the proper operation of the equipment. Failure to observe may result in damage to the equip-

ELECTRICAL WARNING. Indicates information relating to possible shock hazard. Failure to observe may result in damage to the equipment and/or severe bodily injury or

WARNING

HOT SURFACE WARNING. Indicates information important to the handling of equipment and parts. Failure to observe caution could result in



A.4 Important Safety Information (Continued.)

In addition to the warnings and cautions in this manual, use the following guidelines for safe operation of your Nieco Automatic Broiler:

Read and follow all instructions before using this equipment.

Install or locate broiler only for its intended use as described in this manual.

Do not operate this equipment if it has a damaged cord or plug, if it is not working properly or if it has been otherwise damaged.

 This equipment should only be serviced by authorized personnel. Contact your Distributor for adjustment or repair. local Nieco

Use only genuine Nieco replacement parts for your broiler. Failure to do so will • void the warrantv and may significantly alter the performance of your broiler. Nieco and the Burger King **Corporation have worked** together to create a set of standards for broiler performance, food quality

and food safety. The use of non-Nieco parts is capable of affecting these criteria, and mav affect broiler performance, parts longevity and food safety.

The following warnings and cautions appear throughout the manual and should be carefully observed:

 Turn the broiler off and disconnect the plug before performing any service, maintenance or cleaning on the broiler.

 Always allow the broiler to fully cool before performing any service, maintenance or

cleaning. Failure to wait for the broiler to cool fully may result in personal iniury.

The procedures in this manual may include reference to the use of chemical products. The Nieco Corporation does not endorse the use of any particular cleaning/degreasing agent. Use only those chemicals that

are approved for use in the BURGER KING[®] SYSTEM.

The broiler should be grounded according to local electrical codes to prevent • the

possibility of electrical shock. It requires a grounded receptacle with separate electrical lines, protected by fuses or circuit breakers of the proper rating.

 All electrical connections must be in accordance with local electrical codes and any other applicable codes.

• The use of adequate ventilation (as rated in this manual) with this broiler is mandatory. Failure to adequately ventilate this unit and provide safe operating distances (as specified in this manual) is a fire safety

hazard. Follow the instructions for emergency broiler

shutdown in the event of an emergency.

• No attempt should be made to operate this appliance in the event of a power failure.

WARNING ELECTRICAL SHOCK HAZARD. FAILURE TO FOLLOW THESE INSTRUC-TIONS COULD RESULT IN SERIOUS INJURY OR DEATH:

- Electrical ground is required on this appliance.

- Check with a qualified electrician if you are in doubt as to whether the appliance is properly grounded.

- Do not use water on or near the control box for risk of serious injury or death

B. INSTALLATION

B.1 Pre-Installation

Uncrate the broiler and inspect for shipping damage. Remove the tape securing the machine parts, and install the parts in their proper location. If there are obvious or concealed damages to any part of the broiler, please contact your freight carrier. The factory warranty does not cover freight damage.

B.2 Mounting

Follow the mounting instructions if this function is not performed by the installer.

B.3 Leveling

The grease drain system is based on a gravity-flow design. Therefore, it is extremely important that the broiler be placed on a level surface.

B.4 Hood Requirements

This appliance must be installed under a ventilation hood of adequate size. Do not obstruct the flow of combustion and ventilation air. An adequate air supply must be available for safe and proper operation.

For installations in the Commonwealth of Massachusetts the following shall apply: Venting shall be in compliance with NFPA Section 10.3.5.2 for the Model MPB94.

B.5 Clearance

Keep appliance area free from combustibles.

To facilitate disassembly and service of the unit a minimum of 24" (610 mm) should be allowed on the control panel (feed end) of the broiler.

B.6 Electrical Connection

Power requirements are stated on the unit nameplate and must be connected accordingly. This appliance, when installed must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70, or the Canadian Electrical Code, CSA C22.2, as applicable. Before starting broiler, tighten all electrical connections in control box. An electrical wiring diagram can be found inside the control box.

REQUIRED AND RECOMMENDED CLEARANCES

Note: Disconnect power

	REQUIRED for installation near combustible walls and construction	REQUIRED for installation near non-combustible walls and	RECOMMENDED by Nieco for proper disassembly and service
Back of broiler	12" (305 mm)	0" (0 mm)	0" (0 mm)
Sides of broiler	12" (305 mm)	0" (0 mm)	0" (0 mm)
Front of broiler (Feed end)	12" (305 mm)	0" (0 mm)	24" (610 mm)

before servicing.

B.7 Pre-Operation Check

Be sure that all parts are installed in the proper location and the broiler is plugged in.



C. OPERATION

C.1 Controls and Indicators ON THE MAIN SIDE

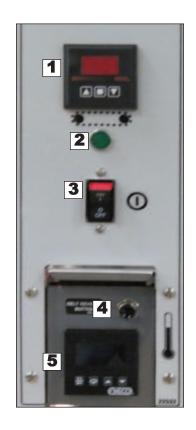
1. Belt Speed Control (P/N 13727-B) - Used to set the broil time on the meat belt.

2. On/Off Indicator Light (P/N 4402) - Glows when the broiler is on.

3. Main On/Off Switch (P/N 15480) - Used to turn the main power supply to the broiler on or off.

4. Belt Reverse Button (P/N 13579) - In the event of a belt jam, push and hold the belt reverse button in to help free anything that may be caught in the belt to help clear a jam.

5. Temperature Control (P/N 19235) - Helps keep the broiler temperature stable when the broiler is under heavy load.



ON THE FLEX SIDE

1. Multi Product Control (P/N 23159) - Used to broil a variety of products that may require different settings (WHOPPERS[®], Chicken, XT)

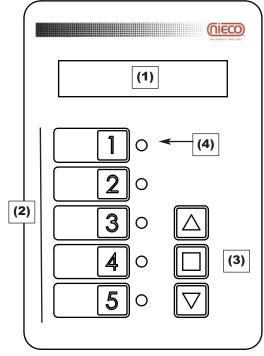
2. Belt Reverse Button (P/N 13579) - In the event of a belt jam, push and hold the belt reverse button in to help free anything that may be caught in the belt to help clear a jam.

3. Temperature Control (P/N 19235) - Helps keep the broiler temperature stable when the broiler is under heavy load.





C.1 Controls and Indicators (Continued.)



Multi-speed control P/N 23159

(1) LED DISPLAY - Shows current product selection and cook time.

(2) **PRODUCT SELECTION BUTTONS** - Press to select different presets for different products.

(3) ADJUSTMENT BUTTONS - Use to adjust product cook times, element settings and product names.

(4) SELECTION INDICATOR LIGHT - Lights up to show which button is selected.



PRE-LIGHTING PREPARATION

1. Broiler is centered under hood and plugged in 2. Turn ventilation system on

THE VENTILATION SYSTEM MUST BE ON AT ALL TIMES DURING BROILER OPERATION. OPERAT-ING BROILER WITHOUT PROPER VENTILATION IS A SEVERE FIRE HAZARD.

1.

NORMAL IGNITION

1. Turn the MAIN POWER SWITCH on.

2. Allow broiler to heat for 45 minutes before cooking. Do not cook during the warm up period.



C.3 Shutdown Procedures

PLANNED SHUTDOWN

1. Allow the broiler to run free of any product for 10 minutes. This will burn the chain clean. 2. Turn off the Main Power Switch.



3. Wait for 30 minutes for the broiler to cool.

EMERGENCY SHUTDOWN

1. Turn off the MAIN POWER SWITCH.



CAUTION A

FOR YOUR SAFETY: Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

FOR YOUR SAFETY: In the event of a prolonged power failure, no attempt should be made to operate this appliance.

IMPORTANT: THIS BROILER IS SHIPPED WITH FACTORY PRESETS THAT MUST BE

If this is the initial start-up for your broiler, ALL control settings must be made according to BURGER KING®

MAIN SIDE CONTROLS

1. SETTING BELT SPEEDS

Press up arrow to increase broil time; press the down arrow to decrease broil time. After you have set the control the display will be flashing. Press the center square to save your changes. NOTE: After making changes to the broil time, if you do not press the center square button, your changes will not be saved.

Use the up and down arrows to set the time. Press the center square button to save your changes.



2. TEMPERATURE CONTROLS

Electric broilers are equipped with a Broil Temperature Stabilizer Control that senses when the broiler is being used, and adjusts the temperature to keep the broiler hot during heavy use. The control consists of two parts - a temperature probe to sense the internal temperature of the broiler, and the control itself.

3. SETTING THE TEMPERATURE CONTROL

In order to assure proper operation, the Temperature Control must be set for operation in the restaurant. Follow these step by step instructions when the broiler is new, and once per month after.

- Step 1: Be sure all pieces of the broiler are in place. Make sure the broiler is plugged in and the exhaust hood is turned on. Turn the broiler on.
- Step 2: MAIN SIDE OF THE BROILER: Set the temperature (bottom number) to 360° C (797° F). Use the up or down arrows on the control to set the temperature. The bottom number is the set temperature and the top number is the actual temperature.

FLEX SIDE OF THE BROILER: Set the temperature (bottom number) to 360° C (716° F). Use the up or down arrows on the control to set the temperature. The bottom number is the set temperature and the top number is the actual temperature.



C.4 FLEX SIDE CONTROLS

1. Multi-Product Control

How it works: The multi-product control is designed to let you broil different products on the flex side of the broiler. The control allows you to have different broiler settings for each product selection button. Use a grease pen to mark the white area with the product name.

2. Normal Operation

Press the product selection button (number) for the product you wish to cook. The display will show the product name and cook time and the light next to the product selection button will be lit.

NOTE: Be sure the belt is clear of any products before pressing a new product selection button.

3. Changing Belt Speeds

Push the product selection button you want to adjust then push the up and down arrows to make changes, then press the center square button to save them.

4. Changing Upper Heat Element Settings

To adjust element settings press the product selection button you wish to change, then press the product selection button one more time. The screen will read Duty Cycle and show a percentage. Press the up and down buttons to adjust the element power up or down (0 = off; 100% = Full on). Press the center square button after you are done adjusting the duty cycle to save your changes.

5. Changing Product Names

Push the product selection button which you want to assign a name to. Press and hold the center square button for 15 seconds. The control will enter the edit name screen for that button. Use the up and down buttons to change the characters. Press the center square button once to move to the next character until you are finished editing the product name for that button (10 character limit). Press and hold the **PRODUCT SELECTION BUTTON** for 5 seconds to save the changes and return to normal operation. 2 PRODUCT 1 02:00

PRODUCT 1 02:00



3



5





D. CLEANING AND DISASSEMBLY

Turn broiler off and close the main gas valve. Disconnect the power supply to the broiler before cleaning or servicing. Allow to cool for 30 minutes prior to cleaning/disassembly. Leave the ventilation system on during cooling. Use only approved cleaning, degreasing and sanitizing solutions.

LEAVE THE VENTILATION HOOD ON DURING COOLING. FAILURE TO DO SO COULD POSE A FIRE SAFETY HAZ-ARD.

CAUTION A

Follow the Disassembly and Reassembly steps to ensure proper operation of the broiler. Failure to do so may result in operational problems. **WARNING**

BROILER PARTS ARE HOT. DO NOT ATTEMPT TO DISASSEMBLE THE BROILER UNTIL IT IS FULLY COOL. FAILURE TO FOLLOW THIS INSTRUCTION MAY RESULT IN

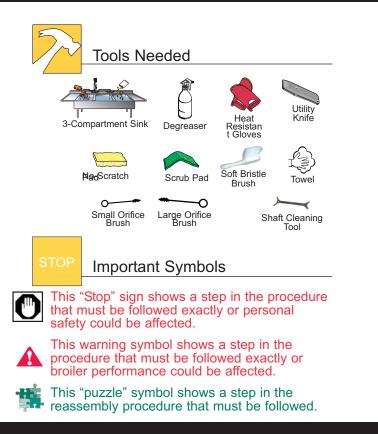
ALL PARTS ARE CLEANED ON A DAILY BASIS UNLESS OTHERWISE NOTED

Follow the steps for proper disassembly. Reverse the order for reassembly.

How to read the cleaning section



Cleaning the Broiler



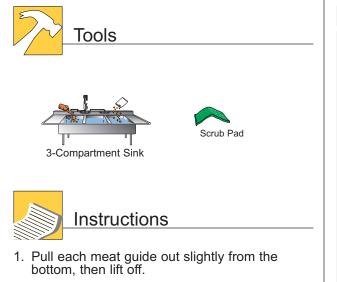
Inst

Instructions

- 1. 1. Allow the broiler to run free of product for 10 minutes before turning it off. This allows any residue to burn off the chains.
- 2. Shut the broiler off and let it cool for 30 minutes before disassembly and cleaning.
- 3. Close the main gas valve and unplug the broiler before cleaning.
- 4. Always leave the ventilation hood on during the 30 minute cool down period.
- 5. Use only approved cleaning solutions.
- 6. Allow parts to air dry after cleaning.

Meat Guide - P/N 18554(Main), 18556(Flex)

Clean: Every 4 hours



2. Wash, rinse, and sanitize in the 3-compartment sink.



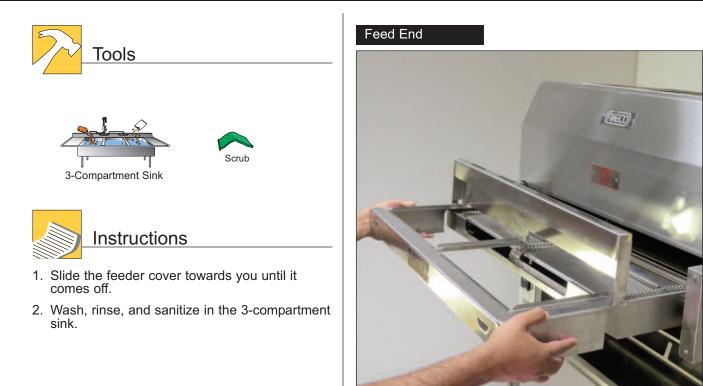


Feeder Cover - P/N 17066

Clean: Every 4 hours

Clean: Every 4 hours

(nieco



Push Bar P/N 22348(Left) - P/N 22354(Right)

 Instructions

 Instructions

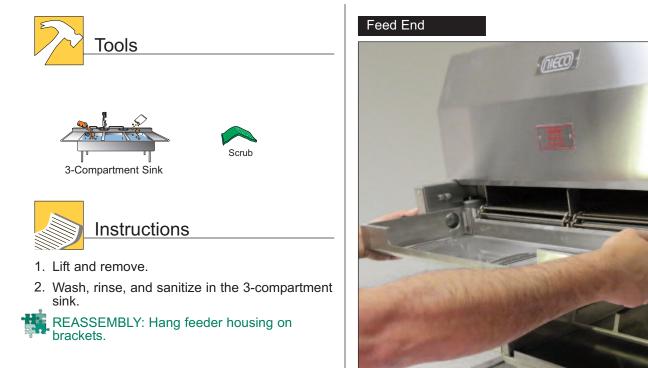
base. REASSEMBLY: Pull the release pin and place feeder base in position. Feed End





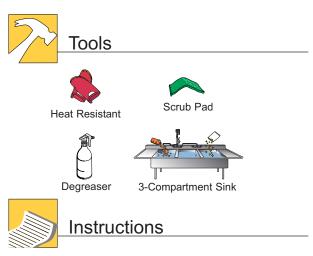
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Feeder Housing - P/N 22295



Feed End

Front Heat Shield - P/N 20468



- 1. Lift shield up and off.
- 2. Take to sink area and spray with degreaser.

3. Wash with a scrub pad, rinse, and sanitize in the 3-compartment sink.







Grease Pan - P/N 22366



- 2. Take to sink area and spray with degreaser.
- 3. Wash with a scrub pad, rinse, and sanitize in the 3-compartment sink.





Lower Heat Reflectors - P/N 22999

 Tools

 Image: Tools

 I

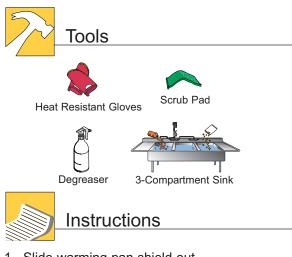
- 2. Take to sink area and spray with degreaser.
- 3. Wash with a scrub pad, rinse, and sanitize in the 3-compartment sink.

Feed End





Warming Pan Shield - P/N 16840

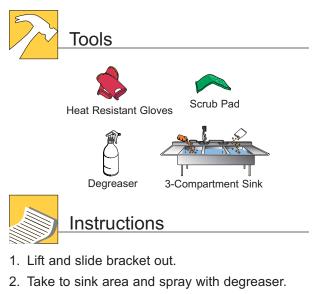


- 1. Slide warming pan shield out.
- 2. Take to sink area and spray with degreaser.
- 3. Wash with a scrub pad, rinse, and sanitize in the 3-compartment sink.





Holding Pan Bracket - P/N 16946



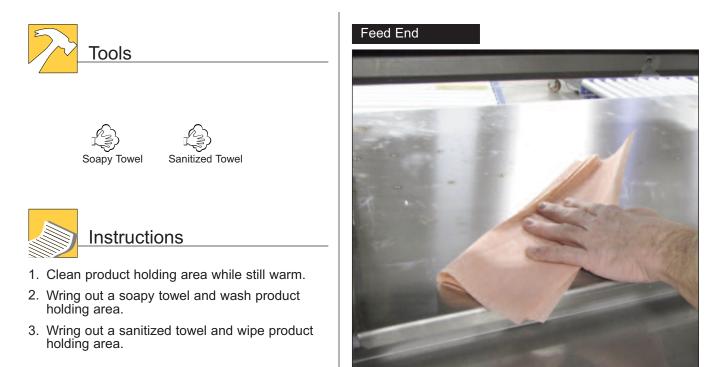
3. Wash with a scrub pad, rinse, and sanitize in the 3-compartment sink.

End



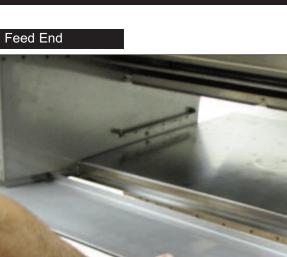


Product Holding Area



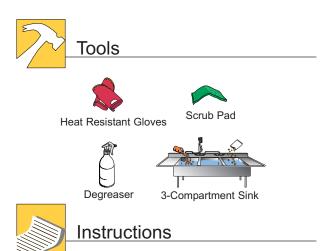
Feed End Grease Trough - P/N 17052







Discharge Heat Shield - P/N 20469



- 1. Lift up and off broiler.
- 2. Take to sink area and spray with degreaser.

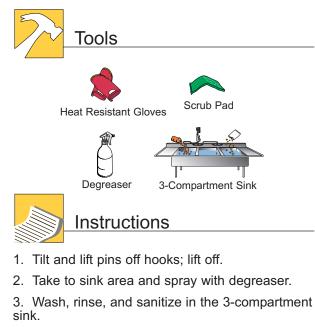
3. Wash, rinse, and sanitize in the 3-compartment sink.

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REASSEMBLY: Make sure brackets go over the frame of the broiler.
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Product Slide - P/N 20474

Clean: Daily



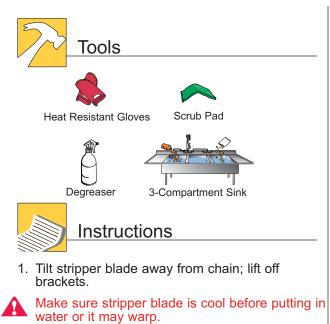
REASSEMBLY: Make sure return pan hangs on brackets.

Discharge End



Stripper Blade - P/N 18919

Clean: Daily

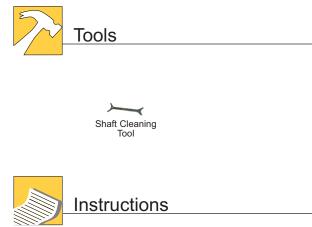


- 2. Take to sink area and spray with degreaser.
- 3. Wash with a scrub pad, rinse, and sanitize in the 3-compartment sink.
- REASSEMBLY: Hang stripper blade on brackets.



Chain Shafts

C	lea	n'	Dai	lv -



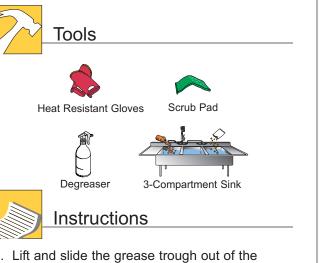
- Scrape each shaft of both belts on the discharge end with the wide end of the shaft cleaning tool. The tool is located on the clip on main side control box.
- 2. Wipe shaft cleaning tool with a towel.

Discharge End





Grease Trough - P/N 16307



1. Lift and slide the grease trough out of the broiler.

2. Take to sink area and spray with degreaser.

3. Wash with a scrub pad, rinse, and sanitize in the 3-compartment sink.

REASSEMBLY: Be sure grease trough is pushed all the way into the broiler.



Grease Box - P/N 22898



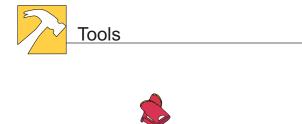
REASSEMBLY: Put grease box on before the grease trough.

Side





Incendalyst™ P/N 20860



Heat Resistant Gloves



O

Instructions

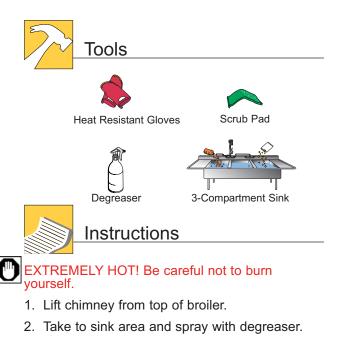
EXTREMELY HOT! Be careful not to burn yourself.

1. Grasp lifting pin and lift catalyst off to remove from chimney.

2. SOAK IN WARM WATER FOR 1 HOUR. RINSE WITH WATER ONLY. NEVER USE ANY CHEMICALS ON THE CATALYST.

- 3. Lay flat to drain water and let air dry overnight.
- 4. Make sure catalyst is dry before putting back on broiler.

Incendalyst[™] Chimney P/N 22780



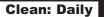
3. Wash with a scrub pad, rinse, and sanitize in the 3-compartment sink.

CAUTION: Extremely Hot



Тор





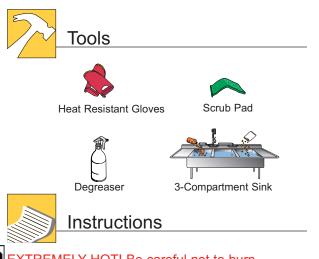




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Upper Air Box Reflector P/N 19099



EXTREMELY HOT! Be careful not to burn yourself.

- 1. Lift reflector from the top of the air boxes.
- 2. Take to sink area and spray with degreaser.

3. Wash with a scrub pad, rinse, and sanitize in the 3-compartment sink.

Reflector/Shield (between the belt)





S **Combination Cleaning Tool**



1. Remove feeder, rear shield, return slide, stripper blade.

2. Remve combination scrapping tool from back of broiler.

3. Use tool to scrape away deposits from Reflector/Shield by inserting in between belt and shield.

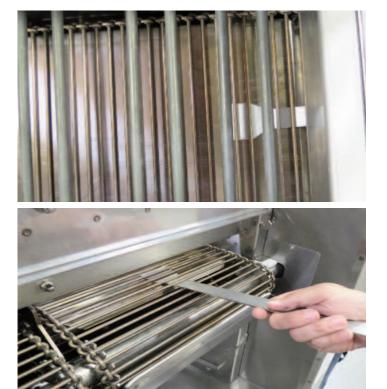






CAUTION: Extremely Hot









Air Boxes P/N 19040 (Front); 19022 (Back)

Clean: Daily





Instructions

EXTREMELY HOT! Be careful not to burn yourself.

1. Loosen and remove hoses as marked by the arrows.

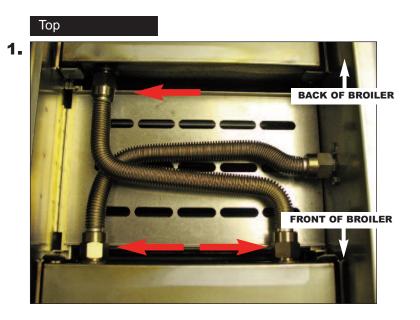
2. Lift the air boxes from the broiler. Note that the front air box has two (2) inlet valves and the back air box only has one (1).

3. Clean the air holes (example shown with an arrow) on both boxes with a brush or an orifice brush if they are badly clogged.

4. Reassemble making sure the front air box with two inlet valves is in the front side of the broiler.

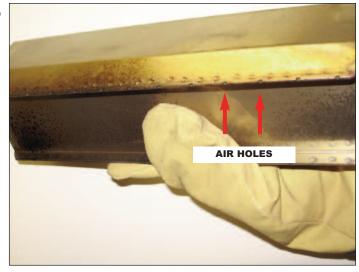
CAUTION: Extremely Hot









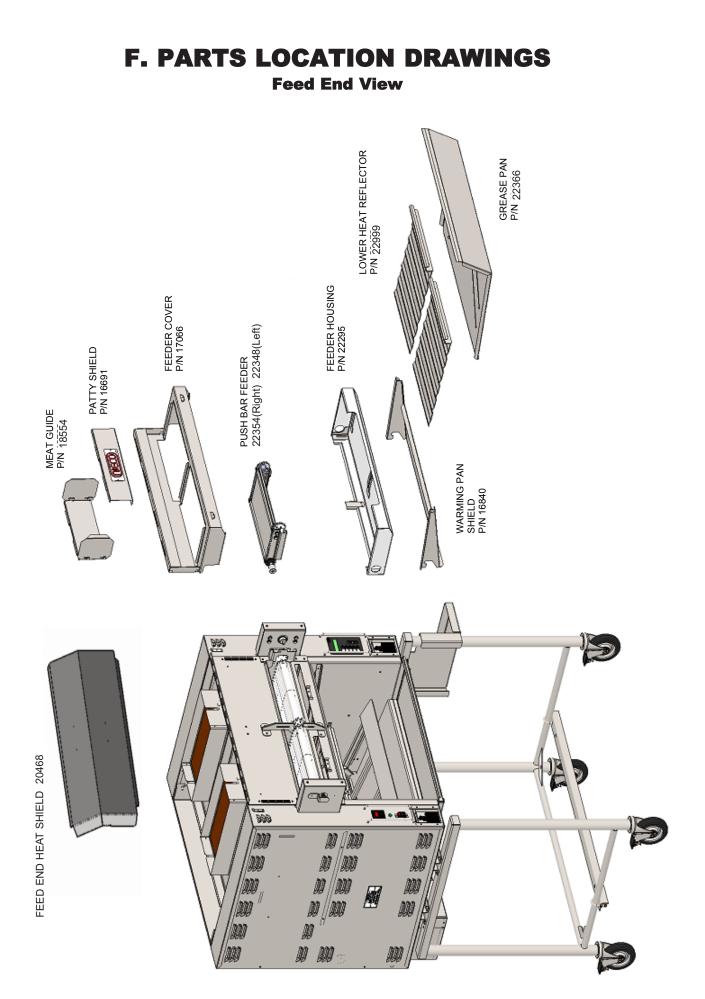




E. TROUBLESHOOTING

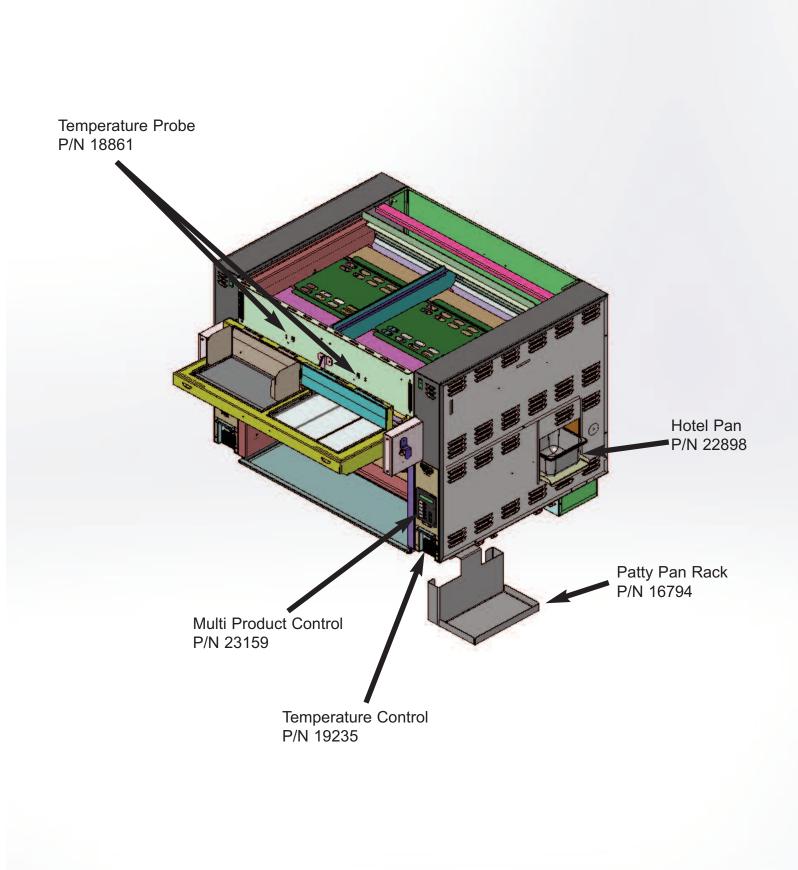
Always verify that the broiler is properly assembled, the hood is on and broiler is plugged in.

No power to broiler when the switch is turned on.	Check: Broiler is plugged in. Ventilation hood is on. Circuit Breaker on wall panel is on.
Power is on, broiler is lit, but the conveyor belts are not turning.	Check for a jam in the conveyor belt. Check the stripper blade and the flame arrestors to make sure they are installed properly.
Feeder belt not moving.	Make sure the feeder is assembled properly. Check for jam. Make sure the drive pin is engaged.
Feeder jams.	Make sure the burgers are not frozen together.
Burgers sticking to slide or stripper blade.	Clean the slide and stripper blade very thor- oughly.
COOKING PROBLEMS Burgers under or over cooked.	Check cookout temperature (undercooking).
	Main side: adjust conveyor belt speed. Flex side: adjust conveyor speed and duty cycle.
Excessive flaming in broiler.	
	Clean or rotate the flame arrestors, Clean the catalyst if equipped. Check the hood for proper operation. Check product for overcooking.



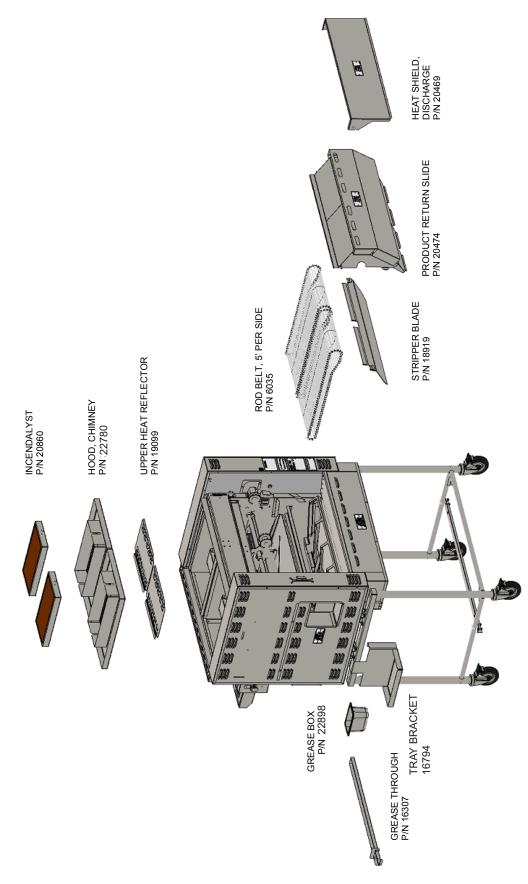


Front View

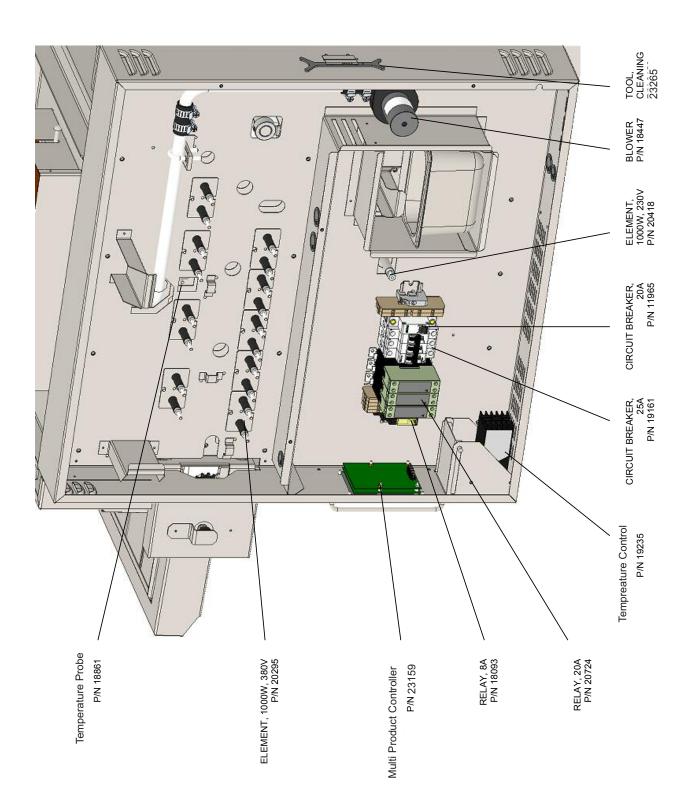




Discharge, Side & Top View

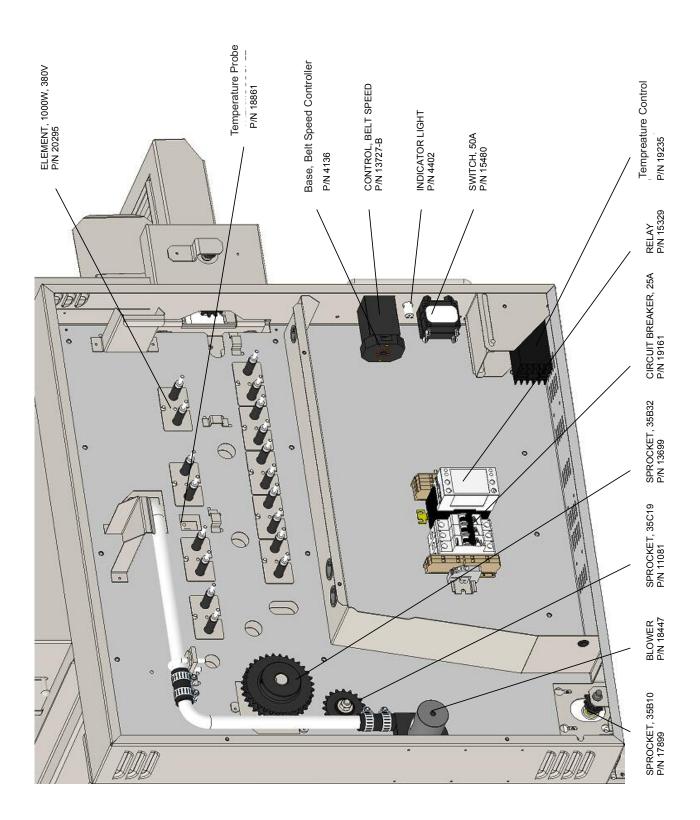


Right Side Control Box



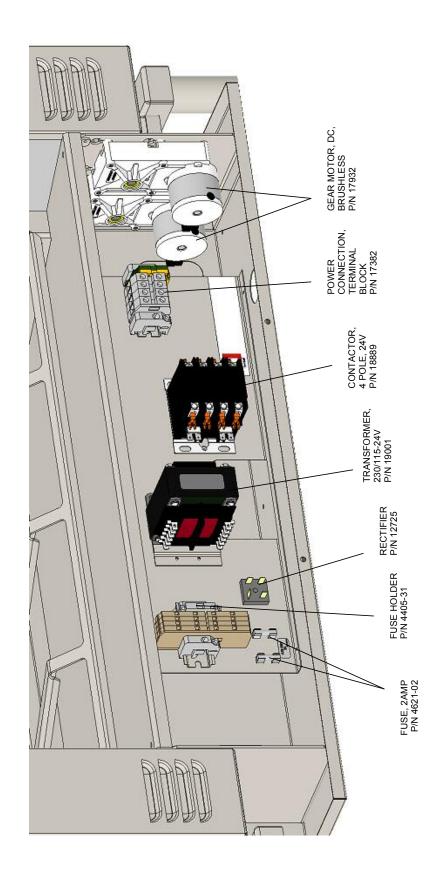


Left Side Control Box

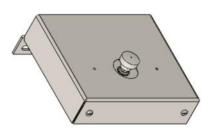


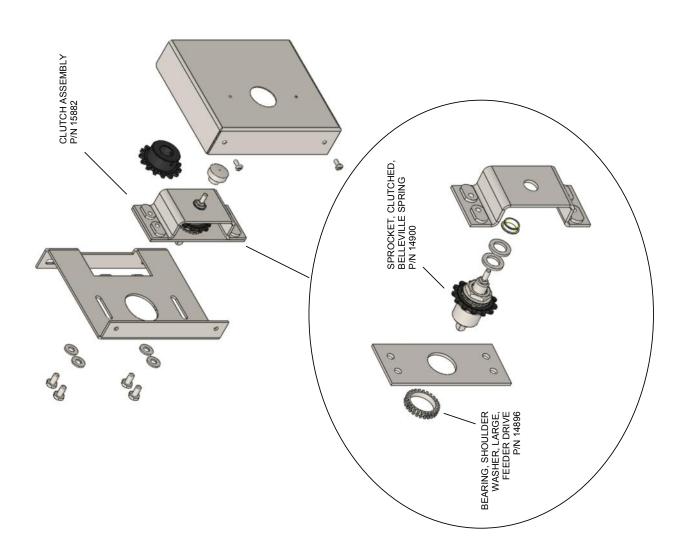


Motor Control Box (On discharge of broiler)



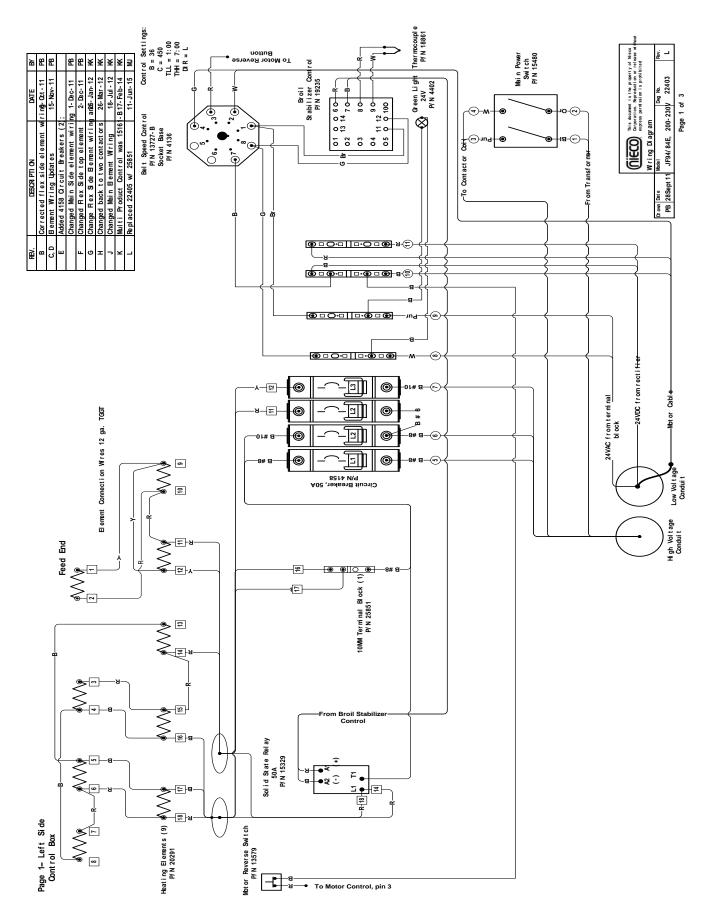
Clutch Assembly





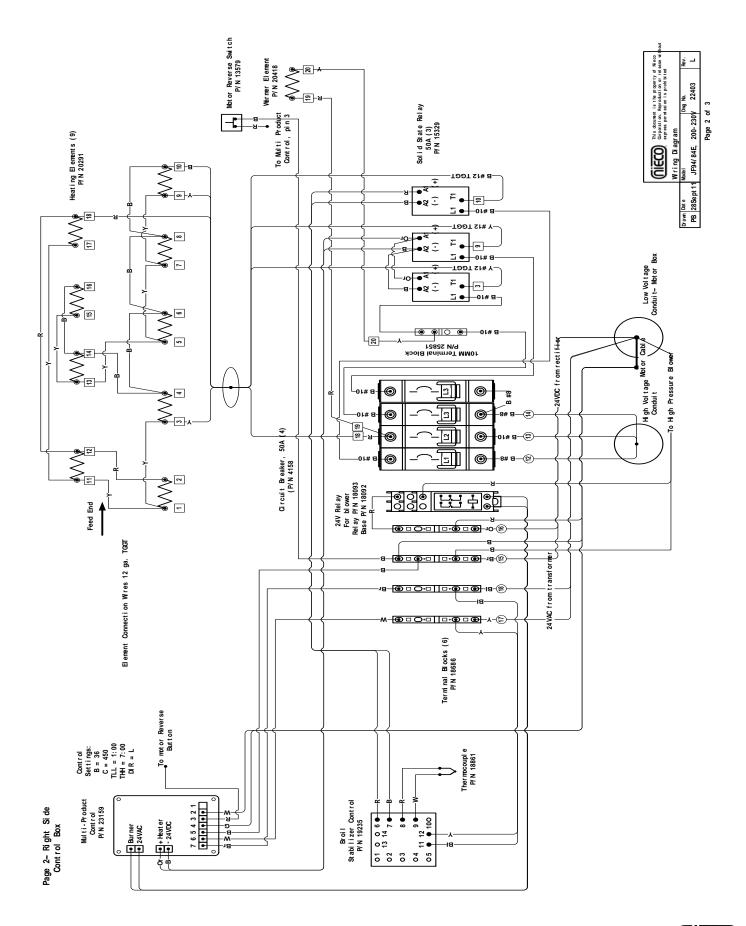


F. WIRING DIAGRAM - Main Side



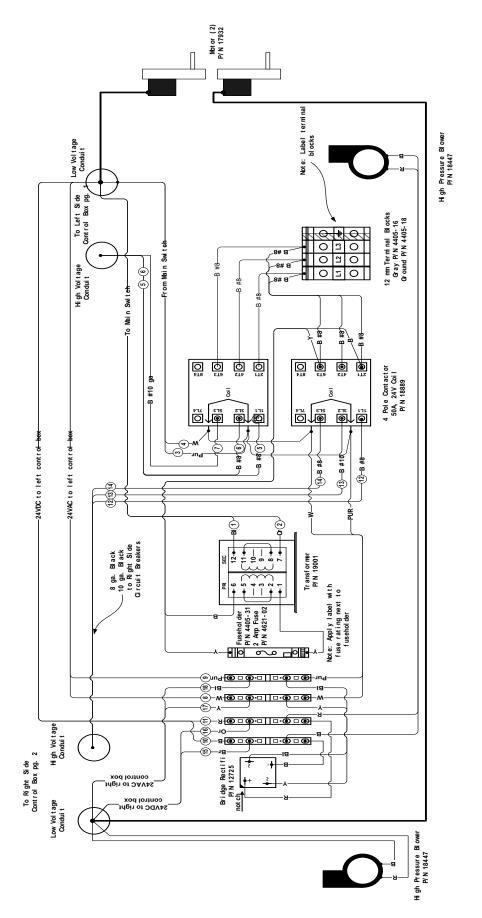


F. WIRING DIAGRAM - Flex Side





F. WIRING DIAGRAM - Motor Box



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Page 3-- Motor Box



I. SPECIFICATIONS

AUTOMATIC BROILER

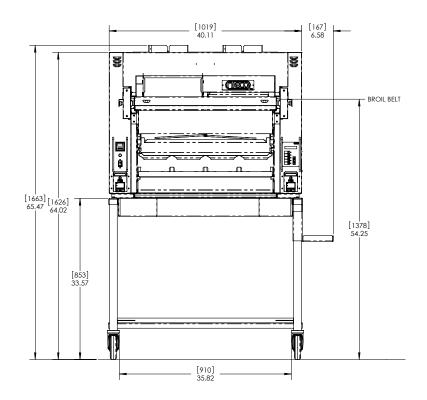
Model JF94E

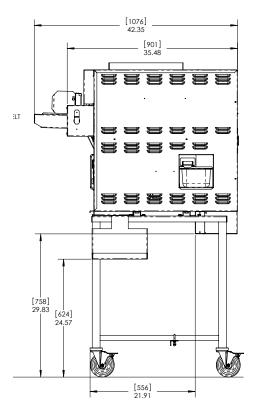
DIMENSIONS	INCH	MM
Length	35.48	901
Height	64.02	1626
Width	40.11	1019

ENERGY

Electrical connection (specify exact vo CE 380-415V 3 25A 19kW Calculated average consumption: 16kW

WEIGHT	LBS	KG
Shipping	690	313
Broiler on Stand	565	256





All electrical connections must be in accordance with local electrical codes and any other applicable codes.

Do not operate the broiler at gas pressures other than those stated here. Doing so will affect the operation of your broiler.





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Revision History:

Date	Notes	REV
1-25-2010	Released	A
8-19-2011	Updated photos, wiring diagram	В
6-15-2012	Added parts location drawings; updated wiring diagrams	С
11-15-2012	Updated wiring diagram; updated front cover graphics	D
6-1-2013	Updated temperature control instructions	E
09-18-2015	General Updates	F



Nieco Corporation 7950 Cameron Drive Windsor, CA 95492 (707) 284-7100 Office • (707) 284-7430 Fax www.nieco.com • e-mail: service@nieco.com Printed in the USA ©

